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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,965	04/27/2001	Sally Kay Swart	163.1385US01	1666

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EXAMINER

JASTRZAB, KRISANNE MARIE

ART UNIT	PAPER NUMBER
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1744

DATE MAILED: 06/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/844,965

Applicant(s)

SWART ET AL.

Examiner

Krisanne Jastrzab

Art Unit

1744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 April 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 18-33, 36-47, 50-60, 63-72, 75-96, 98, 100, 102-104, 106, 107 and 109-118 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

Continuation of Disposition of Claims: Claims pending in the application are 1-14,18-33,36-47,50-60,63-72,75-96,98,100,102-104,106,107 and 109-118.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43, 45-47, 50-56, 58-60, 63-68, 70-72 and 75 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers together with Oakes et al., U.S. patent No. 5,718,910.

Moyers teaches an automated cleaning system configured with a variety of stations. Ultrasonic cleaning with liquid circulation is achieved within a tank means wherein the object being treated is immersed. The object is washed, rinsed, cleaned and then dried by the application of heated air circulated by a blower. Each treatment can be performed in a separate station. See Fig. 1, and column 3, line 3 through column 4, line 5 and the claims.

Oakes et al., teach the recognized conventionality of employing percarboxylic acid in a pH range of from 2 to 8 at temperatures of from 4 to 60° C. Percarboxylic acid offers an antimicrobial composition requiring low use concentrations that minimize cost and potential toxic residue in sterilizing items such as those used in the health care field. See column 1, lines 38-65, and column 2, lines 23-30.

It would have been well within the purview of one of ordinary skill in the art to employ a recognized antimicrobial such as percarboxylic acid as taught in Oakes et al., in the system of Moyers because of its recognized efficacy at low concentrations, thereby lower costs and the impact potential of residual toxins.

With respect to claims 55-56, 58-60, 63-68, 70-72 and 75, Moyers clearly teaches the provision of a variety of stations for article treatment and it would have been

well within the purview of one of ordinary skill in the art to add as many as determined to be required to optimize treatment of the article.

Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over GB 947,700 in view of either Rosenblatt et al., U.S. patent No. 4,504,442 or Jefferis, III et al., U.S. patent No. 4,908,188

'700 teaches sterilization of articles by placing them within a vessel, supported by basket means, and immersing the articles within a cleaning liquid including one having sodium bicarbonate therein (see page 2, lines 84-95). The cleaning liquid being both circulated within the vessel and sonicated therein as well. The articles are then rinsed via a spray of a rinse liquid and subsequently treated with a gaseous sterilant such as ethylene oxide (page 2, line 110 through page 3, line 15).

Both Rosenblatt et al., and Jefferis, III et al., teach the recognized functional equivalence of ethylene oxide and chlorine dioxide and it would have been obvious to one of ordinary skill in the art to substitute chlorine dioxide for ethylene oxide in '700 because of that recognized equivalence. See column 1, lines 25-37 and column 2, lines 54-68 of Rosenblatt et al., and column 1, lines 40-50 of Jefferis, III et al.

Claims 3-4, 6-8 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers and Oakes et al., as applied to claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43, 45-47, 50-60, 63-68, 70-72 and 75 above, and further in view of Hohmann et al., U.S. patent No. 4,710, 233.

Hohmann et al., teaches the use of both ultrasonic transducers mounted on the outside of a treatment tank as well as an ultrasonic probe means within the tank acting directly on the support for objects to be treated (see Fig 2, element 17) because the combination increases effective ultrasonic activity therefor enhancing treatment.

It would have been obvious to one of ordinary skill in the art to include the ultrasonic probe means of Hohmann et al., in the system of Moyers because it would optimize ultrasonic activity thereby enhancing cleaning treatment.

Claims 26-28, 41, 44, 57, 69, 76, 78-84, 87-92, 94-95, 98, 100, 103-107, 109-110 and 112-118 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers and Oakes et al., as applied to claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43, 45-47, 50-60, 63-68, 70-72 and 75 above, and further in view of GB 947,700 and either Rosenblatt et al., or Jefferis, III et al., as applied above.

It would have been well within the purview of one of ordinary skill in the art to include a gaseous sterilant injection means as taught in GB 947,700 utilizing a chlorine dioxide as taught in either Rosenblatt et al., or Jefferis, III et al., in the system of Moyers because it would provide for highly effective microscopic sterilization of the objects in addition to the optimized level of physical cleanliness achieved thereby.

Claims 30, 85-86, 102 and 111 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyers and Oakes et al., together with GB 947,700 and either Rosenblatt et al., or Jefferis, III et al., as applied to claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43, 45-47, 50-60, 63-68, 70-72, 75-76, 78-84, 87-92, 94-95, 98, 100,

103-107, 109-110 and 112-118 above, and further in view of GB 2,040,150 A, Aussenac.

Aussenac clearly teaches the inclusion of a radiation source within a system comparable to that of the combination above, namely treatment of articles with a series of sonification, liquid circulation, rinsing and drying, wherein the radiation source (UV) is applied to enhance both sterilization and heating of the liquids utilized in the system.

It would have been obvious to one of ordinary skill in the art to include the radiation means as taught in Aussenac within the system of the combination above because it would enhance both the liquid treatment with heating and act to sterilize within the system as well.

Claims 93 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moyer and Oakes et al., together with GB 947,700 and either Rosenblatt et al., or Jefferis, III et al., as applied to claims 1-2, 5, 9-11, 14, 18-25, 29, 31-33, 36-40, 42-43, 45-47, 50-60, 63-68, 70-72, 75-76, 78-84, 87-92, 94-95, 98, 100, 103-107, 109-110 and 112-118 above, and further in view of Hohmann et al.

Hohmann et al., is applied as set forth above.

It would have been obvious to one of ordinary skill in the art to include the ultrasonic probe means of Hohmann et al., in the system of the combination above because it would optimize ultrasonic activity thereby enhancing cleaning treatment.

### ***Response to Arguments***



Applicant's arguments with respect to claims 1-14, 18-33, 36-47, 50-60, 63-72, 75-96, 98, 100, 102-104, 106-107 and 109-118 have been considered but are moot in view of the new ground(s) of rejection.

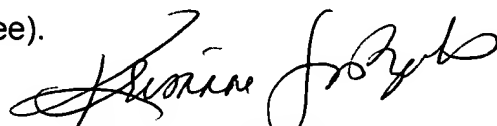
Applicant argues that the prior art of record fails to teach the use of percarboxylic acid, however, newly cited Oakes et al., clearly teaches the conventionality of percarboxylic acid as an antimicrobial solution.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krisanne Jastrzab whose telephone number is 571-272-1279. The examiner can normally be reached on Mon.-Wed. 6:30am-4:00pm and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Kim can be reached on 571-272-1142. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Krisanne Jastrzab

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Primary Examiner  
Art Unit 1744

June 21, 2005